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(71) Applicant: **Lightlab Imaging, Inc.**  
**Westford, MA 01886 (US)**

(72) Inventors:  
• **HUTCHINS, Christopher**  
**Londonderry, NH 03053 (US)**  
• **ATLAS, Michael**  
**Arlington, MA 02474 (US)**  
• **SHIP, Alexander**  
**Needham, MA 02492 (US)**

(74) Representative: **Boult Wade Tennant LLP**  
**Salisbury Square House**  
**8 Salisbury Square**  
**London EC4Y 8AP (GB)**

(54) **INTERFACE DEVICES, SYSTEMS AND METHODS FOR MULTIMODAL PROBES**

(57) In one aspect, the invention relates to one or more rotatable elements and one or more stationary element such that the elements are arranged along a common axis of rotation co-linear with or substantially parallel to an optical path. The optical path is a portion of a sample arm of an interferometer. Further, the rotatable and stationary elements are configured to couple electrical signals and optical signals between a data collection probe

and an interface unit or other component of an imaging system. In one embodiment, the data collection probe is a combination ultrasound and OCT probe. In one aspect, the invention relates to a rotary joint in which the optical fiber and fiber optic rotary joint lie in the center of one or more conductive elements of an electrical rotary joint which are annularly disposed around one or both of the optical fiber and optical rotary joint.

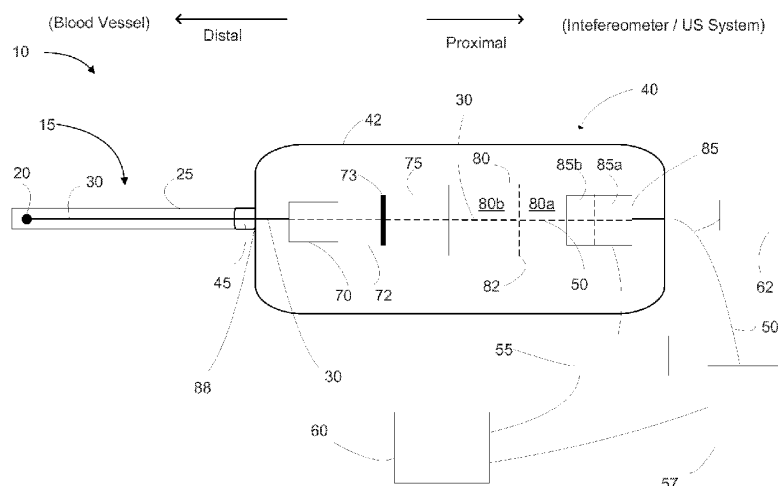


Figure 1



## EUROPEAN SEARCH REPORT

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EP 23 21 8841

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EPO FORM 1503 03.82 (P04C01)

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			TECHNICAL FIELDS SEARCHED (IPC)
			A61B
The present search report has been drawn up for all claims			
Place of search <b>The Hague</b>		Date of completion of the search <b>25 March 2024</b>	Examiner <b>Van Dop, Erik</b>
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

# **ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.**

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25-03-2024

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